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(21)Application number： 2000-163793 (71)Applicant： TOSHIBA CORP

(22)Date of filing： 31.05.2000 (72)Inventor： SUZUKI TAKUJI
DOI MIWAKO

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(54)　LIFE　ASSISTING　DEVICE,　LIFE　ASSISTING　METHOD　AND ADVERTISEMENT INFORMATION PROVIDING METHOD

(57)Abstract：
PROBLEM TO BE SOLVED: To provide a life assisting system which grasps situation regarding the behavior, stress, degree of fatigue, etc., of a user, and in compliance with the situation, provides life navigation service and advertisement display.
SOLUTION: This life assisting system comprises the following: a body-worn living body information sensor parts 1026, 1027, 1028 that are worn on a body and acquire living body information about a user; a behavior information sensor part 1036 that acquires behavior information; a situation recognizing means 1012 that recognizes the situation of the user, on the basis of behavior information acquired by the behavior information sensor part and living body information acquired by the living body information sensor

parts; an information retrieval means 1012 that retrieves information about the corresponding stress situation by using the recognized situation as a key; and information showing means 104, 106, 107 that show retrieved advertisement information and the like to the user.

CLAIMS

[Claim(s)]

[Claim 1] The biological information sensor which equips the body and acquires a user's biological information, and the action information sensor which equips the body and acquires a user's action information, A situation-recognition means to recognize a user's situation based on the action information which said action information sensor acquired, and the biological information which said biological information sensor acquired, Assisted living equipment characterized by having an information retrieval means to retrieve the information which corresponded the information on a user's situation recognized by this situation-recognition means out of the stress management information beforehand prepared for the key, and an information presentation means to show a user the information retrieved with this information retrieval means.

[Claim 2] Assisted living equipment according to claim 1 characterized by providing the measurement spacing control means which controls the measurement conditions of said biological information sensor according to the situation recognized with said situation-recognition means.

[Claim 3] The information which said information retrieval means retrieves is assisted living equipment according to claim 1 characterized by being stress

management information useful to an improvement of the situation of the user who recognizes with said situation-recognition means.

[Claim 4] While having further a setting means to set up the contents of presentation and procedure which are shown to said information presentation means in claim 2 or assisted living equipment given in 3 any 1 terms As information on the object to search, said information retrieval means is considered as a configuration including the navigation information for controlling relaxation information and stress aiming at the dissolution of stress, and advancing the increase in efficiency of an activity. Said information presentation means is assisted living equipment characterized by being for carrying out communications service of the information which said information retrieval means retrieved according to a user's situation according to the contents of presentation and the procedure which were set up by this setting means.

[Claim 5] Assisted living equipment according to claim 4 with which a user's situation in an information presentation means to perform communications service according to said user's situation is characterized by including a user's schedule and task information currently held [claim 6] Assisted living equipment according to claim 4 with which a user's situation in an information presentation

means to perform communications service according to said user's situation is

characterized by including the activity situation of a user's sympathetic nerve

and the parasympathetic nerve [claim 7] The User Information sensor which

acquires the information which equips the body and shows a user's situation, A

situation-recognition means to recognize a user's situation based on User

Information which this User Information sensor acquired, A transceiver means to

receive the information transmitted from the outside while transmitting the

information on a user's situation which this situation-recognition means has

recognized, By having a presentation means to show a user the information

received with this transceiver means, and transmitting the received user status

information Assisted living equipment characterized by considering as the

configuration displayed on said presentation means in response to distribution of

the advertisement suitable for the user transmitted to the user status information

correspondence.

[Claim 8] The server which holds various advertising information and carries out

advertising distribution service while having means of communications, The

advertising retrieval means given to said means of communications that the

advertisement suitable for a user's situation should be searched out of [various /

which said server holds] advertising information based on the user status information which said means of communications received, and it should distribute to a user, A preparation, assisted living equipment characterized by distributing to a user the advertising information which has grasped a user's situation based on the status information of the user concerned acquired from a user, and was retrieved by the situation correspondence out of said server.

[Claim 9] The User Information sensor which acquires the information which equips the body and shows a user's situation, A situation-recognition means to recognize a user's situation based on User Information which this User Information sensor acquired, A transceiver means to receive the information transmitted from the outside while transmitting the information on a user's situation which this situation-recognition means has recognized, While having the function which transmits and receives the information received with this transceiver means between a presentation means to show a user, and a user Based on the user status information received in the server which holds various advertising information and carries out advertising distribution service, and said server An advertising retrieval means to search out of [various / which said server holds that the advertisement suitable for a user's situation should be

distributed to the user concerned] advertising information, A preparation,

assisted living equipment characterized by transmitting and showing a user the

advertising information which has grasped a user's situation and was retrieved

by the situation correspondence out of said server.

[Claim 10] Assisted living equipment according to claim 5 characterized by said

User Information consisting of a user's action information.

[Claim 11] Assisted living equipment according to claim 5 characterized by said

User Information consisting of a user's biological information and action

information.

[Claim 12] The User Information sensor which acquires the information which

equips the body and shows a user's situation, A situation-recognition means to

recognize a user's situation based on User Information acquired by said User

Information sensor, An inquiry information receiving means to receive the inquiry

by the voice to a user, or the text from the exterior, The received presentation

control means which asks and controls a presentation means to information

according to a user's situation, Assisted living equipment characterized by

having a reply information creation means to create the reply information over

inquiry information including a user situation as a text or speech information, and

a reply information transmitting means to ask the reply information which created

with this reply information creation means, and to transmit to a person.

[Claim 13] Assisted living equipment according to claim 12 characterized by said

User Information consisting of a user's action information.

[Claim 14] The step which acquires a user's biological information and action

information, and the situation-recognition step which recognizes a user's

situation based on such biological information and action information which were

acquired, The information retrieval step which retrieves the information which

corresponded the information on a user's situation recognized in this

situation-recognition step out of the stress management information beforehand

prepared for the key, The assisted living approach characterized by having the

information presentation step which shows a user the information retrieved at

this information retrieval step.

[Claim 15] The assisted living approach characterized by searching the

advertisement corresponding to the information on the situation of this user that

has recognized from the server holding the various advertising information

corresponding to a body situation, and showing said user while acquiring the

information which shows a user's body situation and recognizing a user's

situation based on this acquired information.

[Claim 16] The advertising information offer approach characterized by preparing the server holding the various advertising information corresponding to a body situation, retrieving the optimal advertising information for situation correspondence of a user, and showing said user.

[Claim 17] Various kinds of information presentation means and the User Information sensor which acquires the information which equips the body and shows a user's situation, In order to show a situation-recognition means to recognize a user's situation based on User Information acquired by this User Information sensor, means of communications with the exterior connected with this situation-recognition means, and the information to the user who received in this means of communications, Assisted living equipment characterized by having chosen the information presentation means optimal out of said information presentation means for situation correspondence of the user who has recognized with said situation-recognition means, and having a status information conversion means to change into the format corresponding to the presentation means.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] A user measures and judges a user's various conditions with the device which is used attaching to the body and with which it can be equipped, and this invention relates to the assisted living equipment of a body wearing mold, the assisted living approach, and the advertising information offer approach of carrying out assisted living called data utility, such as personal navigation doubled with the situation of the health care or a user.

[0002]

[Description of the Prior Art] For the man of today, the stress in everyday life is called one of the factors of various problems of modern society, such as causing lifestyle-related diseases, such as cardiopathy, or causing serious effect on [, such as also becoming the cause of also causing mental illnesses, such as depression,] health, and also becoming a criminal cause as society becomes complicated.

[0003] By the way, although stress originally points out the thing of the stimulus

which human being received from the external world (it quotes from "what stress is", ****** Yoshiyuki ****, the blue back, and Kodansha), in current, it is called stress also including the accommodative reaction to this. And when an accommodative reaction exceeds human being's limitation, it is said that various illnesses, a mental failure, etc. occur. Or the sympathetic nerve and the parasympathetic nerve are said for these failures to occur by change of a life rhythm, also when the balance collapses.

[0004] Therefore, it becomes important for a man of today how stress is coped with. Although stress control, i.e., stress emission, is the best as a stress coping-with method, for that purpose, various approaches, such as "the image and music which promote relaxation are listened to", "a favorite thing being done", and "a big voice being uttered", are recommended.

[0005] However, when busy every day followed to work is repeated, he does not notice in many cases that self is accumulating stress itself, and fatigue is accumulated, and sudden death may be caused when the worst. Therefore, it is aware of stress, and while it is light, it controls, or it becomes important to avoid are recording.

[0006] For that purpose, although a stress evaluation technique is required,

there is ******** shown in JP,7-124139,A as a measurement evaluation means of stress known conventionally. The evaluation technique shown in this official report measures the sweat rate produced in connection with it by showing an image as the subject, and it is said that the health condition of an alignment is evaluated from this reaction.

[0007] Moreover, there is also ******** shown in JP,10-71137,A. In this official report, it asks for heartbeat spacing from the FFT (fast Fourier transform) processing result of the pulse wave signal detected from the subject, and as it is the technique referred to as judging whenever [stress] from that fluctuation and is shown in JP,9-22314,A, the system which controls a game etc. according to stress or fatigue is proposed.

[0008] Moreover, the wearable computer has become the center of attention as new flow of computing in recent years. A wearable computer is a computer which divides each component of computers, such as CPU, a display, and a communication link part, and a user always attaches and uses for the body. And it is considered that utilize the description of the gestalt referred to as using it, attaching to the body, combine a living body sensor, an environmental sensor, etc. with this wearable computer, a user's body situation is recognized from the

detection information on these sensors, and it is made to perform suitable information presentation for a user etc.

[0009] Although the function to recognize a user's situation is called "context awareness" (context away ANESU), in order to grope for the attempt which performs stress management by computer by using the wearable computer which carried "context awareness" in this way and also to consider as hand free, the attempt for which actuation of a computer uses a voice dialogue is also made.

[0010] Moreover, by JP,10-305016,A, action information is acquired based on biological information, such as an electroencephalogram, the positional information by GPS (Global Positioning System; Global Positioning System), schedule data, etc., and it relates with biological information, such as a pulse, temperature, blood pressure, and sweating, further, and records, and the system which aims at stress mitigation as records whether the schedule was good for itself and generates advice of a future schedule based on this is considered in that case.

[0011] Moreover, although the problem of the call sound in public places, such as inside of an electric car, or the voice at the time of a dialogue takes and is ****(ed) in pocket mold information communication equipment, such as a cellular

phone, to this, it is made to cope with it in vibrator call mode in manners mode etc., or the technique of coping with it, as a message is kept with an answering machine is already used widely. However, it is a place [want / the structure with which it is to contact immediately, and the talk by voice is not carried out, but ** can also communicate a situation and a message simply].

[0012]

[Problem(s) to be Solved by the Invention] Development of the equipment which acquires a user's biological information, and measures and manages a user's stress is hurried as the importance of a cure from stress is recognized, but as mentioned above as such equipment, some are already proposed.

[0013] However, for human being, since stress is generated according to various situations of everyday life, the biological information which is a candidate for measurement changes greatly with external situations of the environment of a perimeter besides inner situations, such as actuation and a mental condition, the position in which the man was placed, etc. Therefore, if it relates with a user's action and biological information is not analyzed and judged, it is difficult to grasp a user's state of stress correctly.

[0014] Moreover, in order to make a user aware of the stress, when stress is

accumulated, it is necessary to tell you about immediately after that. That is, it is because a user does not realize unless it makes it such, and if there is no consciousness, it will be hard to carry out management of an improvement of a lifestyle etc.

[0015] For example, with the technique of JP,7-124139,A, the image was shown, the sweat rate accompanying it was measured, and since it was what evaluates the health condition of an alignment from this reaction, the test subject had to sit down and measure before this equipment. Therefore, it does not become the technique told [at which time stress is accumulated how, and] on the point point of the life actual condition from from [after that every day lives]. Moreover, similar biofeedback equipment aimed at making the stress accumulated by making it sit down in front of the equipment generally ease, and was not that to which stress controls a lifestyle intolerably in everyday life.

[0016] Moreover, in the technique indicated by JP,10-71137,A, although the pulse wave of the subject is detected, it asks for heartbeat spacing from the FFT result of the pulse wave signal and whenever [stress] is judged from the fluctuation, generally it is thought that they are difficult to detect stress fluctuation if they are not evaluated combining the information on actuation or action, since

a pulse wave and heartbeat spacing change with the man's actuation and actions a lot.

[0017] Moreover, it is only controlling the contents (contents) to show by stress, and the system which controls a game etc. according to the stress and fatigue which are the technique indicated by JP,9-22314,A did not support control of the stress of everyday life.

[0018] Moreover, even if it used these systems, it was not what is adapted only by heightening the relaxation effectiveness in the interior of a room with all the scenes of everyday life.

[0019] Therefore, judge a stress situation, it enables it to tell a user about the situation on everyday life, and much of development of the system which makes an aid to control of stress is expected.

[0020] Moreover, although it is important for control of stress to carry out as [provide / with the optimal taking-a measure method for the condition correspondence / a user] in respect of a care, now, such a technique is not found.

[0021] On the other hand, although the advertising display (banner advertising) doubled with the Internet operating condition of users, such as internet

advertising, is widely performed if it looks at the world of the Internet, business which used information offer adapted to each scene of a user's everyday life and this for the advertisement is not yet realized.

[0022] Then, the place made into the purpose of this invention is located in the place which offers the assisted-living equipment and the exchange approach of having enabled it to suggest the stress-alleviation method for the ability to be able to cope with the factor which enables it to urge consciousness of stress to the 1st as judges a stress situation on everyday life and can tell a user about that situation, or causes stress from a user's present condition, a care, etc.

[0023] Moreover, the place made into the 2nd purpose of this invention judges a stress situation on everyday life, and is located in the place which offers assisted living equipment with possible making it contribute to health maintenance of the commercial effectiveness and a user, and the assisted living approach by providing a user with stress alleviation or the service information for a care the optimal based on TPO from that situation, and urging use.

[0024] Moreover, in today when the portable telephone etc. spread widely, every day, it is one of the necessaries which cannot be parted with, and the means of communications of such a pocket mold can take communication and

communication always anywhere, and is convenient. However, when the means of communications of such a pocket mold has arrival of the mail, it must correspond, problems, such as being troubled depending on the situation that a user's present was kept, being in the surroundings, and being shy with them. Therefore, since it also becomes the cause by which this induces a user's stress, there is the need for an improvement.

[0025] Then, the place made into the 3rd purpose of this invention When a portable telephone etc. has arrival of the mail, the optimal correspondence approach can be chosen from a user's present action condition, and it can respond. Even when arrival of the mail is the inside of an electric car, during a meeting, etc., make automatic selection of the optimal response approach for the spot, and it enables it to correspond. Without making trouble to the surroundings, optimal correspondence is enabled and it is in having and offering a user's assisted living equipment and exchange approach it was made unbearable [stress / the approach].

[0026]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, this invention is constituted as follows. That is, the concept of the wearable

computer which a user always attaches and uses for the body is introduced, a user's situation is grasped by various sensors, and the system in which service provisions by grasp of whenever [corresponding to each situation / stress] and it, such as a timely lifestyle improvement and relaxation, are possible is proposed here. Moreover, it enables it to apply these to a consumer's marketing and advertising display business.

[0027] [1] Therefore, the wearing mold biological information sensor which equips the body and acquires a user's biological information in this application the first invention, A situation-recognition means to recognize the situation of a user's stress based on the biological information and action information which the action information sensor which acquires action information, and said biological information sensor and an action information sensor acquired, The various relaxation information or stress which shows a user at a key the situation recognized by this situation-recognition means is controlled. It is characterized by having an information retrieval means to retrieve the information which corresponded out of stress management information prepared beforehand, such as navigation information for advancing the increase in efficiency of an activity, and a presentation means to show searched ******.

[0028] According to this, while retrieving the information which corresponded out of the stress [which recognizes a user's situation based on the action information which acquired a user's biological information and action information, and acquired] management information which carried out situation recognition and was beforehand prepared for the key in the information on the situation of this user that has recognized, this retrieved information is shown to a user.

[0029] Therefore, assisted living with possible making it contribute to health maintenance of a user is made possible by judging a stress situation on everyday life and providing a user with stress alleviation or the service information for a care the optimal from the situation.

[0030] [2] Moreover, the User Information sensors, such as biological information of the user who acquires the information which equips the body and shows a user's situation by second invention, and action information, A situation-recognition means to recognize a user's situation based on User Information which said User Information sensor acquired, A user status information transmitting means to transmit the status information acquired with this situation-recognition means to the server of advertising distribution service, It is characterized by having an advertising retrieval means to search the

advertisement suitable for the situation of the user who received in the server of advertising distribution service, and advertising information reception and the display means of a user receiving and displaying the retrieved advertising information.

[0031] While according to this configuration acquiring the information which shows a user's body situation and recognizing a user's situation based on this acquired information, the advertisement corresponding to the information on the situation of this user that has recognized can be searched from the server holding the various advertising information corresponding to a body situation, and said user can be shown.

[0032] Therefore, a stress situation is judged on everyday life and assisted living with possible making it contribute to health maintenance of the commercial effectiveness and a user is made possible by providing a user with stress alleviation or the service information for a care the optimal based on TPO from the situation, and urging use.

[0033] [3] The information presentation medium of the various kinds voice, for texts, etc. in the third invention, The User Information sensor which acquires the information (a user's biological information, action information, etc.) which

equips the body and shows a user's situation, A situation-recognition means to recognize a user's situation based on User Information acquired in this User Information sensor section, In order to show the arrival-of-the-mail message information to the user who received in means of communications with the exterior connected with this situation-recognition means, and this means of communications, The message presentation medium optimal out of said information presentation medium for situation correspondence of the user who has recognized with said situation-recognition means is chosen. It is characterized by having a status information conversion means to change into the format corresponding to the presentation medium, and a reply transmitting means to transmit a user's status information changed with said status information conversion means to a message-sending person.

[0034] In this configuration, to the message information to the user who received a message, formal conversion is carried out and an arrival-of-the-mail message is shown to the form where the suitable medium corresponding to the situation of the user who has recognized with said situation-recognition means is used. Moreover, a reply transmitting means transmits a user's status information changed with said status information conversion means to a message-sending

person.

[0035] Therefore, since it is not necessary to judge the present condition of the user on everyday life, and for the correspondence based on TPO in consideration of the situation that the occasional user was placed to be attained from the decision result, and to come to make a user do unnecessary consideration, assisted living which does not give a user stress is made possible.

[0036] [4] In the fourth invention, it is characterized by preparing the server holding the various advertising information corresponding to a body situation, retrieving the optimal advertising information for situation correspondence of a user, and showing said user.

[0037] According to this invention, the server holding the various advertising information corresponding to a body situation is prepared, a user's body situation is got to know, the optimal advertising information for situation correspondence of that user is retrieved out of the server concerned, and said user is shown.

[0038] Therefore, while judging the present condition of the user on everyday life, being able to show the user now advertising information, such as the optimal goods for the management to stress etc., based on the situation that the occasional user was placed from the decision result and being able to contribute

to a user's stress management and health maintenance, also commercially, high

advertising information offer of effectiveness can be performed.

[0039]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention

is explained to a detail, referring to a drawing.

[0040] The gestalt of implementation of the first invention is explained first.

[0041] (The first example) The example of the assisted living equipment it

enables it to navigate so that assisted living which becomes effective in the

maintenance of health can be performed as relaxation of the stress can be

performed when the stress which joins a user's body is supervised here and

stress is received, and the mental corporal damage by stress can be controlled,

and stress may be utilized and a user's capacity increase can be planned is

explained.

[0042] Drawing 1 is the block block diagram having shown an example of the

configuration of the assisted living equipment of the body wearing mold by this

invention which applied the first invention.

[0043] drawing -- setting -- 101 -- for an acceleration-sensor module and 104, as

for a wrist watch mold display and 106, a display and 105 are [the Maine module

and 102 / a sensor module and 103 / a head set and 107] portable telephones.

[0044] among these, it is alike to that extent and the Maine module 101 responds while it analyzes the biological information like a wearable computer which is a small lightweight computer and was collected and grasps extent of stress, and it has the function which carries out various kinds of supports. Moreover, it has the function, to process a request or to perform information transfer, control command transfer, etc. between a head set 106, or a display 104 and a portable telephone 107 using the information acquired from the database. [carrying out processing processing of the collected data] [sending the data which carried out processing processing to the database of a center]

[0045] The Maine module 101 concerned is memory 1011 and CPU. It consists of 1012, OS (operation system) which are the application program and control program for realizing an above-mentioned function, and basic software of a computer is stored in memory 1011, and it is CPU about these programs. It is the configuration of 1012 performing and realizing various processings of the purpose. Furthermore, there is a calendar clock function in the Maine module 101 concerned, and the collected information and the processed information are constituted so that a time stump can be attached and managed.

[0046] Moreover, it has the function which synthesizes voice from the character string prepared by text data to the Maine module 101 concerned, and is outputted to it as a sound signal, the function which carries out speech recognition of the sound signal, and is changed into text data, the function which collates data. preservation of the data which carry the Bluetooth chip 1013 for communicating an inter module using Bluetooth (Bluetooth) which is a short-distance radio means of an international standard to attract attention in recent years in the Maine module 101 concerned, and are treated with a system with this Maine module 101 further again, integrated processing of the whole system, and the data communication of an inter module -- and although not illustrated, the communication link with a home server and an administrative server can be performed.

[0047] Moreover, the sensor module 102 is a module for transmitting with the object for biomedical signal collection. Each sensor appearance output signal of the electrode 1028 of the sensor for detection of the biomedical signal attached to this sensor module 102, the pulse wave sensor 1026 which detects the pulse wave of the body here, the temperature sensor 1027 which detects the temperature of the body, and GSR (galvanic skin reflex) which detects skin

resistance of the body is amplified. A/D converter 1024 for changing a sensor

appearance output signal [finishing / pretreatment] into digital data by the

PURIPUROSESU section 1025 which pretreats, and this PURIPUROSESU

section 1025, CPU which manages various control and data processing It

consists of 1022 and memory 1021. Moreover, the Bluetooth chip 1023 is also

built in and data communication with the Maine module 101 is performed.

[0048] In addition, although the configuration which divided from the sensors

1026, 1027, and 1028 to the sensor module 102 for every sensor here is shown,

the sensor module 102 is good also as a configuration which unified the thing for

each sensors. Moreover, the processing in a sensor and a module 102 may be

unified, and it is CPU. 1022 is good also as a configuration which uses the

microcontroller (for example, MicroChip Technologies company PIC16F877)

which contained for example, the A/D-conversion function, and does not prepare

an A/D converter separately.

[0049] Said PURIPUROSESU section 1025 carries out high-pass filter

processing depending on what signal it is, and builds in the filter circuit for it not

only amplifying on the gain suitable for each signal which the sensor detected,

but carrying out low pass filter (anti-aliasing filter) processing according to the

band of a signal. Moreover, each sensor also makes the number of channels

plurality if needed.

[0050] Portable telephones 107 are a liquid crystal screen, two or more manual

operation buttons containing a dialing key, and the usual portable telephone with

a communications department transmitter/receiver part, and output and input

voice. This portable telephone 107 also contains the Bluetooth chip, and can

communicate between the Maine modules 101. And thereby, a voice

input/output, cursor control by the cursor key, etc. can be performed.

[0051] The above-mentioned display 104 is a portable liquid crystal display for

performing text data and image display, is the display terminal constituted by the

key objective only in the display, and is the configuration which has the

Bluetooth chip 1041, receives an indicative data etc. through the Bluetooth chips

1013 and 1041 from the Maine module 101, and can perform control of the

contents of a display.

[0052] A head set 106 is an input/output terminal which a user equips with and

uses for a head, is a head set having Bluetooth besides headphone (or

earphone) and a microphone, and a CCD (solid state image sensor) camera,

and is a device for voice and an image interface. When this head set 106 also

contains a Bluetooth chip, transmission and reception of a sound signal and transmission of an image can be performed. This head set 106 can carry out coincidence concomitant use with a portable telephone 107.

[0053] It is the liquid crystal display of the wrist watch gestalt used inserting in a user's arm, and the wrist watch mold display 105 carries a Bluetooth chip, and transfer of the Maine module 101, data, or a command is possible for it.

[0054] In addition, although premised on the digital communication by Bluetooth here, the radio means of another method may be used for this, or the method which performs D/A conversion and transmits a sound signal to headphone in FM modulation may be adopted. Or you may be the method transmitted not by wireless but by cable splicing. Moreover, you may make it acquire image acquisition with the digital camera with which it equipped apart from the head set 106.

[0055] Next, an operation of this system of such a configuration is explained.

[0056] Drawing 2 is the flow chart which showed the flow of actuation of this invention system of the configuration of drawing 1 . Actuation is explained according to the flow chart of drawing 2 . A user carries the Maine module 101, each sensor module 102, a portable telephone 107, a display 104, and a head

set 106. And a system is started and actuation is made to start, after setting the pulse wave sensor 1026, the temperature sensor 1027, the GSR (Galvanic Skin Reflex) electrode 1028, and an acceleration sensor 1036 to a user (step S201 of drawing 2).

[0057] When it was equipped with said various sensors and they worked, detection of the biomedical signal by the sensor is started, consequently the pulse detecting signal by the pulse wave sensor 1026, the temperature detecting signal by the temperature sensor 1027, the detecting signal of the electric impedance of skin by the GSR electrode 1028, and the acceleration measurement signal by the acceleration sensor 1036 come (step S202 of drawing 2) to be acquired. Timing to measure is performed to timing, such as directions of a user, when there are measurement directions from the Maine module 101, that every minute and 10 minutes (every etc.) are continuous and periodical and.

[0058] A/D conversion of these detecting signals of the analog obtained by sensors 1026, 1027, and 1028 is amplified, filtered and carried out by the ** sensor module 102. And the data by which A/D conversion was carried out will be transmitted to the Maine module 101 through short-distance wireless, such

as Bluetooth1023.

[0059] Next, by the Maine module 101, a user's situation is judged by processing measurement data by the logic set up beforehand.

[0060] That is, by the Maine module 101, actuation (behavior) of a user and a posture are first recognized from the acceleration information acquired from an acceleration sensor 1036 (step S203 of drawing 2).

[0061] The actuation and the posture recognition approach in the step S203 concerned are **** shown in the example of a recognition flow chart of operation of drawing 4 .

[0062] In actuation of S203, and <posture recognition> drawing 4 , acceleration information measures a posture and actuation by equipping the predetermined part of the body with this, using for example, a three-dimension acceleration sensor as said acceleration sensor 1036. As an acceleration sensor 1036 of this three dimension, a three-dimension acceleration sensor consists of carrying out rectangular arrangement of these mutually using two devices made from analog DEBAISESU which are two-dimensional acceleration sensors, for example, such as "ADXL202JC." And such a three-dimension acceleration sensor 1036 is condition of attaching to the waist, in order to measure a motion of a bodily main

(truncus) part.

[0063] And from the dc component obtained with the output which acquired the acceleration wave acquired by this three-dimension acceleration sensor 1036 through the low pass filter, it asks for the inclination of a sensor like drawing 3 , and a posture is detected.

[0064] For example, if a sensor 1036 is attached to the indirect part of the root User's P femoral region, when this is almost level, at least turning up is ((c) reference of drawing 3), or proneness, and if almost perpendicular, in quest of an include angle, a posture can be recognized from it a standing position (refer to (a) of drawing 3), and in the meantime from the vertical component and horizontal component of a dc component in the condition of a seating position (refer to (b) of drawing 3).

[0065] Moreover, actuation (a walk, transit, a bicycle, an automobile, electric car, etc.) is discriminable from the frequency component of an alternating current component, and a fluctuation pattern. For example, to a walk and transit, since it of transit differs from 120-180 (a part for time/) to 60-100 (a part for time/), the fundamental frequency of a walk By carrying out frequency analysis (FFT (fast Fourier transform)) processing of the detected signal, a fundamental-frequency

component is acquired, or (S401 of drawing 4) a wave-like peak is detected, it

asks from the time amount between peaks, and either is recognized by

comparing the power of each band.

[0066] At the time of a walk (walk), the acceleration by the vibration

accompanying landing of one leg is the strongest, and since the acceleration by

vertical movement of the part of the waist by landing of both guide pegs

becomes the largest to it at the time of transit (at the time of a run), when it is a

walk, it is necessary to make fundamental frequency into one half further, when

the stowed position of an acceleration sensor 1036 is not the waist but a foot, for

example, the femoral region of one leg etc., at that time. or the vertical

amplitude's transit direction -- more than twice -- since it is large, the amplitude

value at the time of peak detection is compared, and either is recognized.

[0067] Of course, these are combined or you may make it use either.

[0068] Although he is trying to use FFT for analysis processing here with the flow

chart shown in drawing 4 , it is possible, even if it is not limited to this and uses

other spectrum analysis means, such as wavelet transform. Moreover, wave-like

pattern matching of a primitive period may be taken, and transit / walk / stairway

rise / stairway rain may be recognized. Or as peak detection is carried out simply,

and the number of steps may be measured from the period or it is shown in drawing 17 , peak detection may be carried out on a time-axis, and you may ask for the pitch of a walk/transit.

[0069] In addition, although the Maine module 101 performed recognition of operation with the posture here, the sensor module 102 may perform this and it may transmit the status data of the result (a posture, actuation) at the time of periodical or change generating.

[0070] Moreover, in order to recognize a location, in an indoor case, the wireless tag (for example, Bluetooth chip) and the Maine module 101 which were attached to each part store communicate, and a whereabouts location is detected. the case of the outdoors -- the location-based service of cellular phones (or PHS etc.) -- or although not illustrated, a whereabouts location is detected using GPS.

[0071] Above, actuation (behavior) of a user can be recognized from acceleration information. After this processing finishes, it moves to decision processing of step S204 next.

[0072] Decision processing at step S204 is the check of whether a pulse rate, temperature, GSR (galvanic skin reflex), a posture, actuation, and voice

changed. And as a result, if it is not changing and is returning and changing to processing of step S203 of drawing 2 , it will move to processing of step S205.

[0073] Here, although the information on a pulse rate, temperature, GSR, a posture, actuation, and voice is required for decision processing at step S204, among these, biological information, such as a pulse rate, temperature, and GSR, combines with detection of a user's action condition mentioned above, and is measuring. The measurement approach is as follows.

[0074] <measurement of biological information> -- first, although it is a pulse rate, this is obtained from the pulse wave sensor 1026. The pulse wave sensor 1026 is detected by catching in photoelectricity blood-flow change of a peripheral vessel [in / a finger, a wrist, a lug, etc. / for example,] which is a measurement part. Light is irradiated to the part in which blood vessels gather using an incandescence ball or LED (light emitting diode) etc. which can emit light in light with the absorption wavelength of the hemoglobin that into blood contained as the light source, with the photodiode which is a photo detector, photo electric conversion of the transmitted light or the reflected light is received and carried out, and it is measured. [many]

[0075] The potential wave in which the effect of the light absorption by the

hemoglobin which flows as a blood flow was reflected will be acquired from the photodiode which is the component of the pulse wave sensor 1026 as a detecting signal by this, and after this signal is amplified and filtered in the PURIPUROSESU section 1035, it is changed into digital data with A/D converter 1024. And it is incorporated by the Maine module 101 as a potential data point as pulse wave data by carrying out wireless transmission from the sensor module 102 through the Bluetooth chip 1033.

[0076] By the Maine module 101, peak spacing of a potential wave or frequency analysis is performed from the incorporated pulse wave data, and a pulse rate is calculated from this peak frequency. This analysis and count are CPU. It is carried out by 1012.

[0077] The gestalt of the pulse wave sensor 1026 can consider an earring type, a ring type, a wrist watch type, etc., and may adopt which gestalt. Or it is good also as a gestalt builds in the head set 106 of drawing 1 , arranges light emitting devices (an incandescence ball, LED, etc.) and a photo detector (a photodiode or CdS (CdS cell)) to the both sides of an earlobe, respectively, or builds luminescence and a photo detector in a ring or a wrist watch, and it was made to build a sensor in each module.

[0078] Moreover, the pulse wave sensor 1026 keeps a fixed distance, for example, installs it two pieces, measures the two waves, respectively, incorporates the acquired digital signal to the Maine module 101, and can ask for blood pressure or the elastic modulus of a blood vessel from the difference of a wave-like configuration here.

[0079] Moreover, the light is irradiated at a blood vessel using two LED for wavelength, the absorption wavelength of an oxyhemoglobin, and the absorption wavelength of the reduced hemoglobin, and the saturation of oxygen in an artery component can also be calculated by measuring the reflected light.

[0080] Moreover, it is also possible to irradiate light by LED with the absorption wavelength of a glucose at a blood vessel, and to measure the blood sugar level using the reflected wave.

[0081] In addition, for measurement of a pulse, a heart rate may be calculated from the peak frequency obtained by the peak spacing and frequency analysis using the electrocardiogram (it is more strict medically).

[0082] Measurement is always continued and this pulse value, a blood-pressure value, the blood sugar level, etc. are accumulated in the memory 1011 of the Maine module 101. Or according to directions of the Maine module 101, it

measures at the time of day of periodical or arbitration, and data are stored.

[0083] Next, although it is temperature, this uses the temperature detection sensor 1027. Although constituted using detection devices, such as a thermocouple and a thermistor, as a temperature detection sensor 1027, this is made contact and installed in a user's body surface, and the output of the detection device is changed and acquired to temperature according to the property of a sensor.

[0084] moreover, GSR (galvanic skin response; electric-impedance-of-skin value) it is -- although -- measurement of this GSR consists a predetermined gap in a user's body surface, equips with the electrode of a pair, and takes the method of measuring a sink, and its potential difference and current value for a feeble current, and calculating resistance using that measurement value between two electrodes. The wave-like drift component is first removed about the measurement result obtained from between two electrodes in measurement, and the amplitude which starts, and a count are acquired after that. Moreover, on the other hand, a drift component is acquired from the wave-like average.

[0085] It digital-data-izes, and carry out a radio transmission to the Maine module 101, it is made to incorporate, and these data as well as the output of the

pulse wave sensor 1026 are stored in the memory 1011 of the Maine module 101 concerned.

[0086] The analog (electrical potential difference) data from the acceleration sensor 1036 are also stored in memory 1011 after processings, such as A/D conversion, at such measurement values and coincidence. These data are related with each data by recording each on the same record with measurement time amount.

[0087] Thus, although biological information is obtained, if the information on these biological information, a posture, actuation, and voice has change, it will be CPU of the Maine module 101. 1012 will acquire current schedule data in processing of step S205.

[0088] The existence of change of biological information, or a posture and performance information follows the following criteria, and is judged.

[0089] As mentioned above, while carrying out and continuing measurement, with change Biological information (a pulse, temperature, GSR, etc.) whether it changes An unusual condition [rapid] (-- for example, a pulse -- more than "120" or temperature -- more than "37 degrees" --) -- whether it becomes The case where the change of state [performance information] of "the walk stopped"

breaks out is pointed out. When such a thing is detected (step S204 of drawing

2), it is CPU of the Maine module 101. 1012 the data of the schedule containing

the time of day which changed For example, PIM software corresponding to OS

attached/of the Maine module 101 (for example, if OS (operating system) of the

Maine module 101 is "Windows" of Microsoft) It acquires with application

Microsoft Outlook 2000 etc. (step S205 of drawing 2).

[0090] Next, the adjustment of these information and schedules is checked (step

S206 of drawing 2), and in a voice dialogue, a point [contradictory] and

insufficient information are acquired from a user, and are filled up (step S207 of

drawing 2).

[0091] the approach of acquiring from a user and filling up in a voice dialogue, --

a degree -- like -- it comes out.

[0092] Suppose that the absolute value of 3 shaft-orientations (x-axis, y-axis,

z-axis) each output of the alternating current component of now 1036, for

example, an acceleration sensor, exceeded the range set up beforehand. this

time -- CPU of the Maine module 101 as for 1012, 3 shaft-orientations absolute

value of the alternating current component concerned exceeded the set point

concerned -- with, it judges "the user is moving", and asks to a user, "what is

carried out now?", and action information is inputted by carrying out speech recognition of the reply.

[0093] The text data which presupposes that it is data for a question at this time, and is specifically referred to as "What to carry out now" is prepared, this is synthesized voice from it and sound-signal-ized, and wireless transmission is carried out through the Bluetooth chip 1013 at a head set 106.

[0094] This sound signal is received through the Bluetooth chip of self, and this sound signal is passed to headphone and it is made to output to them as voice in a head set 106. Therefore, the user putting on this head set 106 will hear the voice which is the question from the Maine module 101 and which is referred to as "What to do now."

[0095] A user responds a self situation in voice to this question. For example, they are "the stairway is risen now" and the condition referred to as "Having started from the chair." The voice from this user is changed into a sound signal by the microphone 1061 of a head set 106, and carries out wireless transmission of this sound signal through the Bluetooth chip of self in a head set 106. With the Maine module 101 which a user has, it is the signal of this voice by which wireless transmission was carried out. It receives through the Bluetooth chip

1013. And CPU of the Maine module 101 1012 carries out speech recognition processing of this sound signal, and grasps the contents.

[0096] Next, CPU of the Maine module 101 1012 acquires the schedule managed by the software concerned using PIM software in the data of a user's present schedule from a database DB1 (step S205 of drawing 2). The schedule is beforehand prepared in the form where a date and time of day, and the contents were finely set up according to the user individual's action schedule.

[0097] Next, CPU of the Maine module 101 1012 carries out the comparison with the action data and schedule data which are recognized from acceleration (step S206 of drawing 2). When it does not suit, a dialogue which checks this is performed and you may make it correct a potential result from this result as a result of comparison at this time. Moreover, by the action which compares with a schedule and is not moving when not moving for a while conversely, when it does not check and suit, it asks and carries out whether it is good.

[0098] The inquiry at this time is also performed in a voice dialogue.

[0099] In addition, the comparison with a schedule may use biological information as a trigger. For example, since the possibility of modification of action is to carry out desk work to the schedule when a pulse is quick It checks

as opposed to a user, saying, "Is anything walking or is it running?" Since it will be said that the increment in a pulse rate is mental or that it is morbid if the check shows that a user is among desk work, A question is first performed to a user through a head set 106 from the Maine module 101, saying "whether anything is in a hot condition", and it checks to a user whether it is the condition which has required stress.

[0100] To a question of such a check, when there is no response from a user, it is CPU of the Maine module 101. 1012 recognizes it as a user being in a critical condition. In this case, with the Maine module 101, it is CPU. The medical-examination-related information beforehand registered into the basis of control of 1012 is retrieved, dial dispatch is controlled to a portable telephone 107, and the mail succeedingly prepared for a voice-told message or emergencies is transmitted with the portable telephone 107 concerned, and an alarm is sounded around and it is made notify urgency or to tell a family doctor to it.

[0101] CPU of the Maine module 101 1012 performs presumption of a situation or living activities based on measurement data, actuation, and a schedule (step S207 of drawing 2).

[0102] That is, individual sensor information corpus DB2 which it has in a terminal (Maine module 101) is searched based on a user's action information (what is carried out where) and time data which were obtained, the sensor information on the same conditions is acquired, this is compared with the measured sensor information, and it judges whether there is any significant difference in a value or the trend of change.

[0103] Next, CPU of the Maine module 101 1012 measures whenever [stress] from change of living activities, the pulse to a situation, temperature, and GSR (step S208 of drawing 2).

[0104] That is, in the Maine module 101, it has held in memory 1011 by making the standard range of each biological information into a parameter for every action information, and if the candidate for a comparison is standard within the limits, when normality and the standard range are exceeded by the comparison with this, it is judged that it is unusual. You may usually set this parameter automatically from the data at the time. Or the pattern (wave) of change of the biological information at the time of a certain action is memorized, and a correlation coefficient with this is acquired, and when a correlation coefficient is below the set point, it is judged that it is unusual. When it separates from usual,

there is some disturbance etc. and it can be judged that whenever [stress] is high from usual. Thereby, normal and the abnormalities of whenever [stress] are detectable for every various actions.

[0105] Also with the following gestalten, normal and the abnormalities of whenever [stress] are detectable. For example, although drawing 7 is the example of the screen of the displayed living body and action display, as shown in drawing 7 (a), the pulse trend graph is shown in the screen the monitor table every moment, and signs that the pulse is going abruptly up during a walk are shown. If there is such a sudden rise, since this usually separated from the pattern, it can be judged to be unusual. In this case, since the transit (it is running) condition was conjectured from the pattern, "measurement data had change like drawing 7 (b). It seems that a pulse is quicker than usual now although it seems that it is running. What is the matter? The question screen " is shown to a display and a user is asked for a reply of this. A reply is good to prepare and display the example answer of "since it is late for the opening hour of an afternoon, it is running", "training", and **** of "being pursued", and to make it have a user choose. And if a user chooses the sentence "are running since it is late for the opening hour of an afternoon" in order to reply to this, it can

judge, "Since the feeling was impatient, the pulse was higher than usual", and can be detected as "Whenever [stress] is + (plus)" as a result (drawing 7 (c)). Normal and the abnormalities of whenever [stress] are detectable for every various actions also by, for example, making it process in this way by the Maine module 101.

[0106] Next, in order to grasp the contents which the user senses to whenever [stress], a user is questioned by the voice dialogue about subjectivity information (step S208 of drawing 2). The dialogue structure of a voice dialogue of using at this time acquires the dialogue structure of the past which processed and built within the Maine module 101 from a user's situation, or was accumulated in individual sensor information corpus DB2 which is the database of are recording data with sensor information. concrete -- a degree -- like -- it comes out.

[0107] <the acquisition approach of dialogue structure> -- here, the example of the acquisition approach from sensor information corpus DB2 of dialogue structure is explained with reference to drawing 5 . As shown in drawing 5 , in standard sensor information corpus DB2, it has dialogue structure in one record whenever [environment / for matching / (season, time amount location, posture,

actuation, action, schedule action), body information (pulse, temperature, GSR, height of voice), and stress]. What became beyond the reference value that calculates whenever [stress] using a performance index and has this value about the similarity of these environments, body information, and the measurement data (biological information) obtained from the user is recognized to be the record in which a user's situation is shown, and the dialogue structure for whenever [this stress], and correspondence is acquired (step S210 of drawing 2).

[0108] whenever [in addition, / stress / which was judged here / (it acquired from average sensor information corpus)] -- being related -- a user -- "-- although it seems that it is tired considerably -- /-- /whether to be tired although it seems that it is tired for a while -- " -- ** -- the said inquiry is carried out -- having -- according to the individual, it may correct based on the reply returned by the user, and the correction result may be reflected in it at corpus DB2.

[0109] for example, the question [system] to a user "whether some are announced although it seems that the pulse rate is high before the meeting" when the situation which is in front of a meeting and says that the pulse rate is high has been grasped -- a user -- receiving -- carrying out -- this -- receiving -- a

user -- "yes. An important presentation occurs. it is become tense. the reply " -- a

system -- returning -- this -- winning popularity -- a system side -- "-- let's breathe

deeply and settle down. or if a drink is also drunk, I will think that it is good. the

stress alleviation advice " -- generating -- a user -- returning -- a user -- this --

winning popularity -- "-- it understood. " -- ** -- suppose that said answerback

was carried out.

[0110] About the result of such a dialogue, it is CPU with the Maine module 101.

It registers with sensor information corpus DB2 as an example of dialogue

structure according to situation by processing of 1012. namely, the situation

which says in the case of this example the example of registration acquired as

this dialogue result is **** shown in drawing 6 , and "it is in front of the

example:meeting of dialogue structure, and the pulse rate is high" -- receiving --

"system: "are some announced although it seems that the pulse rate is high

before the meeting?"" -- ->" user:"yes. An important presentation occurs. It is

become tense.""->" system: "shall let's breathe deeply and settle down? Or if a

drink is also drunk, I will think that it is good.""->" user: "it understood. The

example of dialogue structure according to situation will be registered into

sensor information corpus DB2 from the contents"."

[0111] In addition, there is also a method of performing the frequency component of a user's voice by analyzing continuously in detection whenever [stress]. As human being's utterance description, the frequency component of voice and the time-axis component are said that it is higher than usual etc. that the description of whenever [stress] appears, and the frequency of the uttered voice can also detect whenever [stress] by analyzing continuously the frequency component of the voice of the user at the time of a dialogue using this. Therefore, a measurement value is obtained for whenever [stress / with a more high precision] by performing frequency analysis of voice and measuring whenever [stress] (step S211 of drawing 2).

[0112] Or when there are a partner who has met, and a partner who supposes at the attendance partner of a meeting who is doing current attendance that he is poor at him (a pressure is sensed), it is judged that whenever [stress] is high. First, the subjectivity data to the man are stored in the address book of PIM software. While talking with those who have met, judging from the biological information (a pulse, GSR, etc.) when meeting, this has a high pulse, or when the addition value of GSR is high, it is accumulated in the address book of the **** structure shown in drawing 14 which consists of an item called "whenever

[confrontation person (name)", the "address", the "telephone number", --"

stress]" as a partner who senses stress.

[0113] And when you meet the man, by recognizing a partner from a

confrontation image or inputting an identifier by speech recognition, the PIM data

of the user in DB1 are searched, and data are acquired whenever [to a partner /

stress]. Moreover, a partner's feeling is recognized from a partner's speech and

conduct, whenever [stress] is acquired also from biological information further

at present, and whenever [stress / of a user] is judged with such combination.

[0114] It sets up in the form of frequency, and whenever [stress] carries out

data equalization, whenever he meets the man in this. The stress frequency of

anticipation becomes high at the partner who senses stress chronic by this.

[0115] Or a situation (for example, schedule information, such as a "regular

meeting") when having met people etc. is linked and recorded, and also

whenever [stress / for every situation] is accumulated in the corpus of the

configuration like drawing 15 . If the schedule data planned from now on and its

attendant (partner who meets) are inputted, whenever [stress / which is

expected from there] will be computed based on operation expression

whenever [predetermined stress], and it will be advised that a certain amount of

stress control can be performed to a user before meeting holding.

[0116] Moreover, stress may be sensed also with distance with people, this is interpreted with the concept of "personal space", and also according to an individual mental condition, although that distance is various, if it also adds measurement of whenever [by this concept / stress], it can reflect how to feel more practical stress. the distance robots (for example, an ultrasonic distance sensor, an infrared distance sensor, etc.) with which the user was specifically equipped -- others -- it is made to measure, and in addition to this, the situation of a time location etc. is doubled and recorded, and the personal space according to situation is measured, and whenever [stress] is counted for it by the confrontation person name, the time amount whose people are in-personal space for every situation, or its man.

[0117] Moreover, it smells and is called the disagreeable big factor in which a strong smell also accumulates stress. The surrounding reinforcement and the surrounding class of a smell are recorded using the periodic sensor, and this may be changed into whenever [stress].

[0118] In addition, there is relation with time amount as an element in which stress is accumulated. Whenever [stress] becomes high while holding the case

where the consistency of a schedule is high, and the work with a deadline. By associating whenever [stress] and recording also on the data of a task (To-Do), or the event of a schedule like drawing 15 , it is judged that whenever [stress] becomes high as the deadline becomes near.

[0119] A corpus like drawing 15 which consists of each item, such as "whenever [seasonal", "day of the week", "schedule/task (To-Do)", "contents/volume", --" stress]," and "fatigue" Although whenever [to the schedule for every situation, a task, and it / stress] is accumulated In order to carry out a free input to a schedule or a task, in case it will search from now on, retrieval by keyword is performed about these names, and the nearest thing is searched together with other situation data.

[0120] While acquiring - subjectivity information whenever [stress / of a user] with the above means, record of supplementation of contingency data, correction, and subjectivity information is carried out (step S212 of drawing 2). And when it is higher than a threshold with this twist and is able to judge that it is a state of stress, data are transmitted to a communications service entrepreneur with the data of a user's situation whenever [stress], and communications service which was suitable for the user based on this is performed (step S213 of

drawing 2). As a service menu in that case, it is 1. Music, an image, and short story distribution (relaxation)

2. Advice Navigation to Event (Concentration Strengthening)

3. The multi-service of the above 1 and 2 etc. can be considered. An inquiry comes out at the time (at in this case, the time of the beginning of using of Maine module 101 grade) of the terminal beginning of using or the power source ON of Maine module 101 grade, and it is made to be possible [with liking of a user / a setup of a service menu].

[0121] And as contents of service, if it is at the selection time of a relaxation course, when a user is in a state of stress, it seems to be "fatigue at a user, for example. How is such music? Please look at a display. It shows with voice to a user as ", and a music list is displayed on pocket displays, such as a display 104 or the wrist watch type display 105.

[0122] Here, it links with contents distribution service industry companies, such as music, it carries out based on a user's situation data (what is carried out where) and the data (which is tired or has stress built?) of whenever [stress], the contents optimal from this inside for a user are extracted from the database in a service entrepreneur, and this candidate is shown to a user. If a user

chooses contents from these lists "if this is reproduced, OO circle accounting will be carried out. is it all right? if an acknowledgement message is displayed as " and a check is inputted -- the contents -- purchasing -- data -- download and a display -- or in-stream playback is carried out. The questionnaire of the result is acquired and this is fed back to a database.

[0123] In the case of the advice to an event, and a navigation course, a certain amount of stress is permitted and service which navigates a user in the direction which can demonstrate the maximum effectiveness while not exceeding tolerance is offered. Various classes are prepared for an event in accordance with the situation for every user. For example, when a "pro sport player", a "amateur-athletics player", "taking an examination", a "presentation", etc. occur and the date of acting before the audience is set up, respectively, it is CPU of the Maine module 101. 1012 sets up the navigation menu in [from a service opening day to acting before the audience] acting before the audience. And its service is given.

[0124] In addition, a continuous setup is made to perform this menu setup on the scale of the relaxation - maximum effectiveness exertion. Although a rest required in order to make effectiveness into the maximum in the maximum case,

and relaxation are offered, rest and offer of relaxation are increased as it brings close only to stress alleviation.

[0125] The timing of relaxation service provision is doubled with a user's measured situation. While carrying out the event to aim at and action (for example, under studying for an examination) which has effectiveness in the given task, when it is made not to interrupt, this action continues and fatigue begins to accumulate relaxation service, service is offered with relaxation advice. Moreover, the parameter reflecting change of the sympathetic nerve, such as fluctuation of a heartbeat, and the parasympathetic nerve is measured, by this, while the sympathetic nerve is being activated, an advice menu which demonstrates the effectiveness in the situation to the maximum extent is displayed, and since rest is required when the parasympathetic nerve has been activated, you may control to offer relaxation service.

[0126] Or since the control approach also changes with a thing with the stress desirable for a user, and things to avoid, the class of such stress may be presumed from a user's situation, and service provision which suited this may be performed.

[0127] <the judgment approach of the class of stress> -- here, the judgment

approach of the class of stress is shown. Stress is detected by technique which was already described. Then, further, I evaluate an index continuously, and have a user evaluate whether as for the stress, it is bad whether it is good for the user, and this is accumulated in individual sensor information corpus DB2. And that of that of "performing navigation which eliminates this stress", or "performing navigation which can perform the maximum capacity exertion" is judged at the time of the same situation.

[0128] It can determine how you make it reflected in service by the ability performing the class judging of stress by the above processing.

[0129] In addition, since a user's biological information and action information are always acquired, a user may enable it to refer to, as the screen information which created monitor results, such as these biological information, and a posture, actuation, in the form [like] where hysteresis can be followed over a past fixed period from this time is sent and it can be made to display on a user's display. for example, drawing 8 (a) -- like -- coming out -- it is -- the case of this example -- the living information (the migration for [walk (he is walking)] lunch of this example into a dining-room) of operation from the present to the past predetermined period [-- a seating position (it is sitting down) --] -- a meal -- [-- a

walk (he is walking) --] -- lunch -- finishing -- a sitting-room -- migration -- " --

current -- action -- a condition (it is running) -- current -- the body -- a situation (a

pulse is quick) -- other manual operation buttons etc. -- displaying -- having --

this time -- If the thing of the request in living information [present on display] of

operation is chosen, the graph of the biomedical signal at that time is displayed,

and it enables it to see a transition state on a screen in this example (refer to

drawing 8 (b)). Although the graphs of a biomedical signal are an

electroencephalogram and a pulse in this example, of course, you may enable it

to also display other things.

[0130] As mentioned above, while the first example acquires biological

information, such as a user's pulse, and temperature, GSR Acquire a user's

attitude information and change of a user's body situation is detected from such

information. It collates with a user's action schedule. Moreover, when body

change of a user is not suitable on an action schedule The situation

correspondence on which whenever [stress] was measured and whenever

[stress], and a user were put is provided with the service or advice which can be

tied to capacity exertion taking advantage of stress alleviation, stress relaxation,

or stress to a user.

[0131] Therefore, stress relaxation can be performed, the mental corporal damage by stress can be controlled now, and the assisted living equipment which becomes effective in the maintenance of health can be offered. Moreover, the assisted living equipment which utilizes stress and can plan capacity increase now can be offered.

[0132] Next, at the time of stress generating, the method of coping with recommendation to a user can be commercially advertised for the stress alleviation, it enables it to aim at health maintenance of a user and implementation of the commercial effectiveness, or the example collects the information about stress from a user, uses for consulting or marketing, and it enables it to use effectively for a trade activity is explained as the second example.

[0133] (The second example) In the second example, at the time of service provision or information presentation, a user's physical and mental situation is always grasped and the advertisement which was suitable at it is displayed through a wearable computer. The hardware configuration to be used is good with the configuration of the block diagram shown by drawing 1 also in the second example.

[0134] And information is acquired like the above-mentioned by the first same configuration and same approach as an example whenever [action information / of a user /, biological information, and stress]. And the genre of the advertisement which suits a user's situation within a wearable computer (Maine module 101 in drawing 1) based on the these-acquired data after acquisition of such information is presumed, and the data of the selected advertising genre are transmitted to an advertising service contractor.

[0135] As mentioned above, the Bluetooth chip 1013 is carried in the Maine module 101 for radio, and when the wireless tag (Bluetooth chip) and the Maine module 101 which are the transceiver section of Bluetooth which installs everywhere many inside of a street corner, a station, and a building etc., and will be used according to construction of the network using Bluetooth will communicate from now on, it communicates with a network. An advertising service contractor's server is connected to the network, and the server of the advertising service contractor concerned performs advertising distribution which suited the genre data sent from a user's Maine module 101 through a network. Distribution of an advertisement is performed with the gestalt of the banner on e-mail, voice, and a display etc., and it is delivered and received through

Bluetooth.

[0136] The advertising distribution by the side of a server is doubled with a user's current situation, aims at the timing that an effect of advertising is the highest, and offers the thing of the optimal contents, and it is made to make it display it on the device by the side of a user. For example, the super market which offers the advertisement related to work of the day, and it is made to make display like drawing 11 if a user is attending the office, and is subsistence store-related advertisements, such as a hobby, and food, clothing, or near the going-home path if it is at the user's going-home time advertises a dealer for an advertising display before a sink and a user's purchase chance.

[0137] Moreover, in addition to this, the contents of a display and display media can be changed by a user's psychological situation (is whenever [stress] high or is low?). For example, it is condition of controlling stopping advertising distribution and distributing in the situation which after that relaxed etc. by situation which is highly [whenever / stress] hard-pressed.

[0138] In addition, although the gestalt which chooses the contents which an advertising distribution contractor distributes here explained, it may be alike so that the function which enables it to choose the advertisement which sets by a

user's own situation and is not considered as the advertisement received and displayed may be given to a terminal side (wearable computer). Or this filtering may be constituted so that it may be made to distribute using the setting information from a user after making it carry out by a service contractor's server side.

[0139] Moreover, it is good to change not only the contents to display but display media according to a user's situation. For example, if it is recognized that a user is walking from action information, the advertisement to offer is condition of making it change to presentation with voice not as an alphabetic character or an image but as voice data.

[0140] Moreover, individual action data and the subjective information over it can be collected as another example, and it can also use for a marketing consultant enterprise. Since individual action data and the subjective information over it are accumulated in the wearable computer (Maine module 101), this information is offered and got from a user. Since it is individual humanity news, it needs to be based on a user's volition. Therefore, it is made to be transmitted to a server side because the user itself does transmitting actuation of such information.

[0141] When using for consulting, the information to collect needs to suit the

target consulting. For example, since it needs to be targeted at the person who came the case where it used for consulting of a certain convenience store on the outskirts of a convenience store of an object when the example was given, as shown in drawing 13 (a) To enable it to collect the data of the person P who came around the store (area A) When the wireless tag of Bluetooth is installed in a store and the neighborhood concerned, it connects with the person who came to near using the Bluetooth concerned (step S1301 of drawing 13 (b)) and connection is successful An individual may be asked, and I may also show the class and distribution place of data, and may sell data, or consent is obtained (step S1302 of drawing 13 (b)).

[0142] In order to make data easy to collect, it is good to adopt the structure which considers as structure which pays the charge of information to the user individual who communicated then, or offers a coupon specially (step S1303 of drawing 13 (b)). Moreover, in order that the residents who live in the neighborhood of the store concerned may investigate whether he goes shopping where, it is good to also collect the information on the commercial area used well every day. The collection data at that time have few problems, when it is going to sell collected data as goods, if dealing with only anonymity data like drawing 12

and a check to that effect are exchanged among users.

[0143] Thus, as a result of gathering information, it becomes easy to decide it to be individual action data of many men who make it action area near the store concerned whether it is optimal that the subjective information on the stress to it makes the contents of goods exhibition in a convenience store what kind of thing from an assembly and this.

[0144] Thus, the wearable computer which can collect the information on whenever [stress / which is produced by a user's action and its action] is used. By building the structure which collects the collection data to the server on a network using Bluetooth The products offered of the goods which are helpful to the dissolution corresponding to whenever [individual stress], It can use now that you can make it reflected in advertising distribution of promotion etc. for marketing and consulting which were seen from the field of stress. And there are many people to whom a passage cuts near about commercial use among what kind of men, or since a consumer's actual condition can be grasped by that which can also acquire statistics, control of the goods exhibition doubled in the time zone also becomes possible.

[0145] moreover, the time of the person who was conversely suitable for the

contents of goods exhibition coming to near -- (-- the employment referred to as

displaying the advertisement of drawing 13 (steps S1304 and S1305 of b)) and

its goods and the advertisement of a store is attained (steps S1306 and S1307

of drawing 13 (b)). For example, when the person who passed by near is likely to

accumulate stress (step S1305 of drawing 13 (b)), It is made to make it display

from the wearable computer which distributes the advertisement which

recommends the favorite food of a sweet thing or its man, and the (steps S1306

and S1307 of drawing 13 (b)) man carries (step S1308 of drawing 13 (b)).

Construction and its employment of the system which becomes possible and

can expect the sales promotion effectiveness are possible also for saying

[promoting attractiveness to consumers].

[0146] the fixed point as showed such marketing investigation here -- a wearable

computer may be given to not only information [-like] but an investigator, and the

information of the man near the investigator may be collected.

[0147] The following gestalten are also considered as another operation gestalt.

For example, the contractor who sells health food lends out a wearable

computer set like drawing 1 to a consumer, or it sells at a low price. With a

means which was mentioned above using this, whenever [action information / of

a user / and stress], and health condition are measured.

[0148] Next, a consumer (user) transmits to the service contractor of health

advice of his own data, and a service contractor receives a medical checkup

result. Or such information is measured periodically and it transmits

automatically to a service contractor, or a contractor accesses each user's

terminal, and collects information, and a situation is judged. And after judging

whether it is the situation that the reply to this can be shown to a user, a

diagnostic result is transmitted from a service contractor's system by the media

doubled with the situation, and in a user side, the terminal which a user has

receives the sent diagnostic result concerned.

[0149] Then, banner advertising (drawing 9 (a), drawing 10 (a)) relevant to a

diagnostic result, such as health food and health medicine, is displayed, or the

homepage display (drawing 9 (b)) of service of on-line shopping etc. is

performed to coincidence. For example, banner advertising which recommends

nutrients, such as a vitamin-C tablet and a nutrition supplement drink, and the

page display of on-line shopping are performed to the user liable to fatigue. Here,

in order to acquire the sales promotion effectiveness positively, it is good to offer

coupon service of "if this service is used, a user's point will be saved as a

privilege", "offering a coupon (for example, free presentation tickets, such as a drink) specially as a privilege", etc. Furthermore, it is effective, if it is the configuration of giving a map indication of store guidance or showing around with voice (drawing 10 (c)) as it will display the display carbon button of a store map on banner advertising if an advertiser is a store etc. (drawing 10 (a)), and it is shown in drawing 10 (b), if a user operates this.

[0150] Thus, the second example is equipped with Bluetooth which is the radio means of a short distance. While having a user carry this and utilizing for the health care to a user's stress using the wearable computer which gave the function in which biological information and action information are collectable While the information over these stress of the user who passes is collected to a server through the wireless tags (Bluetooth chip etc.) and network of a street corner and the user is accumulating stress, the stress alleviation sake, By distributing the contents which advertise the method of coping with
/
recommendation commercially to a user, and having made it tell a user In analyzing the information about the stress accompanying the action of the user who was being able to build the system which can realize health maintenance of a user and the commercial effectiveness, and collected to the server, or it The

system which can be used effectively for the trade activity it enabled it to use for consulting or marketing can be built.

[0151] Next, another example is explained as the third example.

[0152] (The third example) It is the example which presents a user's situation acquired using the above-mentioned user's situation-recognition means with the optimal means for every Media of a question in the third example to the question from the outside, such as a portable telephone, and e-mail, a pocket bell (trademark).

[0153] Also in this example, a hardware configuration is the same as that of drawing 1 , and enables the acquisition of information with the same configuration as the first example whenever [action information / of a user /, biological information, and stress].

[0154] Here, the case where it is made to make a message receive a message as real-time voice (telephone) in a portable telephone 107 is explained to an example.

[0155] The flow chart of the processing is shown in drawing 16 .

[0156] If a terminal (Maine module 101) is started, information will be acquired by the Maine module 101 by the first same configuration and same approach as

an example whenever [action information / of a user /, biological information, and stress]. And when a portable telephone 107 has arrival of the mail (steps S1601 and S1602 of drawing 16), it is CPU of the Maine module 101. Refer to the setting mode table like drawing 18 for 1012 (step S1603 of drawing 16).

[0157] This setting mode table shown in drawing 18 for every an addresser's category or individual or [the information on "the reply propriety at the time of receiving a message (/a letter is answered -- don't carry out)", and / "or / answering a letter to what kind of contents /"] -- It is the table which tells the truth or can set up /no, ", etc., and such a table is beforehand stored in several kinds or a portable telephone 107, and a user is choosing and setting this up on a portable telephone 107. " -- It shall consist of Maine modules 101 so that this table information can be acquired and used.

[0158] CPU of the Maine module 101 1012 starts situation-recognition processing of a user except for the case where a letter is not answered, according to the conditions of a setting mode table. Since various kinds of data (biological information) collected with the acceleration-sensor module 103 which a user carries, or the sensor module 102 are transmitted to the Maine module 101 This is received and it is CPU of the Maine module 101 concerned. While

1012 recognizes a user's situation as well as the second example for a start

Access which goes via a Bluetooth chip to a portable telephone 107 based on

the information is carried out. Open authorization information is extracted from

the setting mode table built in the gestalt telephone 107 concerned, and the text

for voice presentation which combined this is created (step S1611 of <u>drawing</u>

<u>16</u>).

[0159] According to situation recognition, first for example, from the information

and the schedule of an acceleration sensor 1036 It turns out now that the user is

on an electric car, and is positional information (when it is the outdoors). It turns

out the location-based service of a cellular phone (PHS), or that it is between

Jiyugaoka-Nakameguro (Toyoko Line) from detecting a whereabouts location

using GPS although not illustrated. Supposing it turns out that queuing is already

made current time with the friend as a user's schedule in Shibuya, "electric car is

taken from here. Shibuya is reached in 10 more minutes. The text " is created.

[0160] And a message is returned to an addresser for this as a reply of a cellular

phone using speech synthesis (step S1612 of <u>drawing 16</u>).

[0161] This text may display the screen which may display and transmit to the

user (addressee) or takes a check, and you may constitute so that there may be

nothing as which this is answered and a user chooses "yes" and for which a situation is carelessly transmitted outside as it ******.

[0162] Or when a message is received, it displays on **** which shows information, such as an identifier of an action addressee, to drawing 20 , and a selection input is performed for a reply message to the display section of the pocket mold display 104 or a cellular phone 107 etc. on a screen to this. About notice media, a table like drawing 19 is set up and it notifies according to this.

[0163] the case where a location is [action of the example of a table of drawing 19] "a walk" "outdoors" -- the notice of telephone arrival -- "voice" -- and It is made to perform a message indicator with "voice", and "in an electric car", when a location is a "standing position", it is [action of the notice of telephone arrival] "vibration." And it is made to perform a message indicator by "the text display to the wrist watch mold display 105", and "in an electric car", when a location is a "seating position", it is [action of the notice of telephone arrival] "vibration." And "a display 104" is made to perform a message indicator, and if a location is "indoor", when action is "- (it does not ask)", it means that the notice of telephone arrival is "vibration", and supposing that a message indicator is "nothing" is set up and it is.

[0164] Moreover, when notifying a phase later on (for example, when telling only arrival of the mail with voice and displaying the contents in a text), the media of a detail display place and a device are transmitted with voice.

[0165] When a notice is displayed on a display, supposing a user chooses "a notice of a situation" (ST1 of drawing 20), CPU 1012 of the Maine module 101 ride on Toyoko Line now ["] based on status information, and are between Jiyugaoka-Toritsudaigaku. Shibuya is reached in about 10 more minutes. A notice text is created as " and it displays (ST3 of drawing 20). Supposing it chooses "transmission" after a user's checking this, it will transmit after media conversion to an addresser (ST4, ST5 of drawing 20).

[0166] On the other hand, if a user chooses "edit" in the condition of ST3 of drawing 20 , it will become the mode in which status information can be edited (ST6 of drawing 20). For example, if it is made the mode of edit, a user can change what has become "between Jiyugaoka-Toritsudaigaku" in the above-mentioned example into the condition called "between Nakameguro-Daikanyama" (drawing 20 ST7). And it follows on this modification and is CPU of the Maine module 101. 1012 changes automatically the message which was a duration "between Jiyugaoka-Toritsudaigaku" and which becomes

for "10 more minutes" in "5 more minutes" which is a duration "between Nakameguro-Daikanyama" (ST8 of drawing 20). This prepares the table of section Bessho important point time amount, and when a section change by the edit mode is made, it can realize easily by considering as the configuration of obtaining the thing of relevance with reference to the table concerned.

[0167] Moreover, if "substitution" is chosen from the condition of ST3, it moves to the condition of ST9 of drawing 20 , it becomes possible to substitute a message extensively, and all things can be set as a situation. And if "under a meeting" is chosen in this condition (ST10 of drawing 20), the text of the contents which is holding a conference in the firm can be created (ST11, ST12 of drawing 20), and no matter it may be in what situation in practice, supposing it chooses "transmission" after a user's checking this, it can transmit after media conversion to an addresser.

[0168] The contents of edit shall be changed by the situation and the detectable range of a user. For example, if it is "under meeting", the time amount after meeting termination (meeting time amount is detected from a schedule) will be notified.

[0169] In the situation which cannot do the above editing tasks from a user's

situation, a letter is automatically answered on the conditions which asked with voice or were beforehand set as the table.

[0170] Thus, while giving the function in which the third example is equipped with Bluetooth which is the radio means of a short distance, and biological information and action information can be collected While grasping a user's action condition using the wearable computer which holds a user's schedule information and enabled it to recognize an action condition from these Since it considers as the configuration which chooses the optimal correspondence approach and corresponds from a user's current action condition when a portable telephone etc. has arrival of the mail It can respond to a dispatch partner, without making trouble to the surroundings, since automatic selection of the optimal response approach for the spot is made and it corresponds, even when arrival of the mail is the inside of an electric car, during a meeting, etc. Therefore, to the arrival of the arrival of a telephone, mail, etc., the optimal correspondence is possible and a user's stress also needs to cease to build.

[0171] Conventionally especially about manners modes, such as a certain portable telephone Although an addresser will become kind since he can apply again when convenience becomes [a user] good according to it if a user unites

with the present situation that it is in the situation which does not appear in a telephone and can show an addresser to the addresser who calls In order to explain that it is in the situation which this example can realize [situation] this now and he cannot separate from a user's present situation by telephone to an addresser, the essential conflict which the conventional portable telephone that it had to appear in a telephone was holding can be canceled from the origin.

[0172] In the above, various examples were explained. And all the examples that start the third invention from the first invention are made to perform information presentation to a user by speech synthesis. However, in this invention, the alphabetic character or image display to not the thing restricted to voice like these examples but a head mount display (display of a goggles mold) or a pendant mold display, and a wrist watch mold display do not interfere, either. Moreover, it can tell that a wrist watch mold display, a portable telephone, etc. operate this vibrator, and have a message by vibration when it is made vibrator built-in and a user has a message.

[0173] Moreover, you may make it change feedback media according to a user's situation based on the action measured and recognized. For example, although a message is not sent during a display and sleep during voice and work during a

walk, it is the condition referred to as making it transmit to a perimeter, or a family doctor and a commissioned company with him in emergency. Moreover, it tells with vibration and voice strong against emergency also to him, and a difference can be given to the recognition over information.

[0174] Moreover, if it is the configuration which is notified to the terminal plurality of those who are in near when the condition that he cannot cope with it is detected (when critical), many surrounding people will recognize an emergency and it will also become the system which can respond to the emergency of an aging society, an old-people-living-alone household, etc. promptly. Moreover, it is also useful to prepare the function in which carry out media conversion to a terminal collectively, enable it to tell who is sending abnormalities where, give an urgency, for example, emergency sends in the amount of Oto.

[0175] Moreover, when it is necessary to measure oneself [user], it is good to consider as the configuration which displays the message which stimulates measurement according to a measurement schedule (when neither automatic meter reading nor data transfer can be performed etc.). And since a measurement result is not obtained, the condition that the system is not functioning normally can be prevented from being generated for a long time, if a

follow message is periodically displayed when it does not measure. In addition, the method of a display of a message is good to enable it to adjust interactively.

[0176] Moreover, although the example mentioned above explained the example which uses Bluetooth for intermodule communication to the subject, an approach will not be asked, if a communication link on personal level is possible, it is clear and it is. Moreover, the body is treated as a conductor, the technique (PAN; PersonalArea Network) which delivers and receives an electrical signal is also developed, and a configuration which carries out intermodule communication using this technique may be adopted. It completely thinks the same way in IrDA (infrared communication interface). Moreover, although the example which performs intermodule communication in radio in an example explained, the cable connection which is one of the standard interfaces of serial communication using RS232C etc. for example, is sufficient as this.

[0177] about transfer conditions, the biological information of order when actuation has change is transmitted, or a transfer rate is raised (a priority is raised) -- it may be made like or you may make it raise time resolution For example, when it is judged from the output of an acceleration sensor that a physical activity of operation is high, it is high in the time resolution of the data to

measure, and it is possible [it] in the action high stress is expected to be by the above-mentioned stress detection algorithm, when that is not right to transmit biological information low etc. Moreover, also controlling the class of acquisition information is also considered. For example, they are an electrocardiogram and the condition referred to as making it only into a pulse at the time of low loading at the time of a heavy load.

[0178] Moreover, the sensor of a wearing condition is in a sensor module and each Maine module, and in a configuration of that the sensor for acquiring the same data is arranged also at the environment side, at the time of wearing, when wearing is removed by the sensor module of a wear rubble again, it can also consider as the configuration which acquires data in an environment side.

[0179] When the sensor module is equipped with the attachment-and-detachment detection sensor energization type [for example,], for example, resistance is infinity and the electrode is opened if it is potential and a resistance detection type sensor in order to realize this, it can respond by detecting having been removed or detecting having shifted, when the signal of a check is flown from the Maine module, detection is repeated and it is lost in this. And if a sensor separates, out of an environmental network, if the Maine module

looks for and finds a user's biological information and environmental information, it will connect an acquirable sensor for them, and will acquire data. Moreover, when a sensor is not found, it is good to show a user the message "there is nothing" and to record also on data with the cause. For example, in the case of a pulse sensor, if it is made to change to a pulse from the electrocardiogram in an organ bath and becomes during sleep at the time of bathing, the electrocardiogram from the electrode with which bedding was equipped, or respiratory fluctuation (from an image to detection) will be substituted for fluctuation.

[0180] When the communication link condition with a wear rubble device worsened, data are accumulated in the network side and a connection condition is recovered at the time of the measurement by the side of an environment, it transmits to a wear rubble. However, a direct alarm is emitted when emergency happens to a user.

[0181] Moreover, although A/D conversion of the measurement data is carried out and the circumstantial judgment in a digital signal is performed in this example, this may be performed by analog signal processing.

[0182] in addition, the invention in this application is not limited to each example

mentioned above, and in the range which does not deviate from the summary,

many things are boiled and it can be deformed at an execution phase

Furthermore, invention of various phases is included in the above-mentioned

example, and various invention may be extracted by the proper combination in

two or more requirements for a configuration indicated. For example, even if

some requirements for a configuration are deleted from all the requirements for a

configuration shown in an example, at least one of the technical problems stated

in the column of Object of the Invention is solvable, and when at least one of the

effectiveness stated in the column of an effect of the invention is obtained, the

configuration from which this requirement for a configuration was deleted may

be extracted as invention.

[0183]

[Effect of the Invention] As explained above, according to this invention, in body

wearing mold assisted living equipment, navigation of the life can be carried out

in the direction where it eases or a user, such as working at the maximum

effectiveness in it, desires it by not applying time and effort to a user, but

grasping whenever [stress] from a real user's action hysteresis and biological

information from the schedule data of performance information and a schedule

measured from the user. Moreover, this can be used for marketing of an area by totaling in the unit of an area etc.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is drawing for explaining this invention, and is the block block diagram showing notionally the configuration of the body wearing mold assisted living equipment of this invention.

[Drawing 2] It is drawing for explaining this invention, and is the flow chart which shows the procedure in the first example of this invention.

[Drawing 3] It is drawing for explaining this invention, and is the mimetic diagram showing the principle of posture recognition of human being who uses by this invention.

[Drawing 4] It is drawing for explaining this invention, and is the flow chart which shows the example of processing of the recognition of operation used by this invention.

[Drawing 5] It is drawing for explaining the example of structure of the standard sensor information corpus about the stress used by this invention.

[Drawing 6] It is drawing for explaining the example of dialogue structure according to situation registered into the sensor information corpus used by this invention.

[Drawing 7] It is drawing for explaining the example of action related pulse trend graphical representation used by this invention, and the example of an action input screen at the time of outlying observation.

[Drawing 8] It is drawing for explaining the example of the display screen of the biological information relevant to the action used by this invention.

[Drawing 9] It is drawing for explaining the example of a situation dependence advertising display used by this invention, and the example of an on-line shopping screen by it.

[Drawing 10] It is drawing for explaining example of an advertising display and example of a path initial screen format according to stress and a fatigue situation of the user who uses by this invention.

[Drawing 11] It is drawing for explaining the example of an advertising display and the example of guidance corresponding to the action information of the user

who uses by this invention.

[Drawing 12] It is drawing for explaining the example of local sensor information corpus structure about the stress used by this invention.

[Drawing 13] It is drawing showing the example of a flow chart of information gathering of a neighboring passage person and an advertising display in a certain convenience store used by this invention.

[Drawing 14] It is drawing showing the example of structure of the address book data which include information whenever [stress / which is used by this invention].

[Drawing 15] It is drawing for explaining the example of the related database structure of fatigue whenever [schedule and task list, and stress]. [which are used by this invention]

[Drawing 16] It is drawing for explaining this invention, and is drawing showing the example of a flow chart of the situation dependence housesitting message reply to the cellular phone concerning the third example of this invention.

[Drawing 17] It is drawing showing the posture and the example of a recognition flow chart of operation carried out based on the peak detection of the time amount axial-wave form where it uses by this invention.

[Drawing 18] It is drawing showing the example of the authorization entry table of the contents of answerback about a message-sending person used by this invention.

[Drawing 19] It is drawing showing the example of the answerback means setting table for every situation of a user used by this invention.

[Drawing 20] It is drawing showing the example of ****** <DP N=0018> ** of the message indicator used by this invention,

[Description of Notations]

101 -- Maine module

1011 -- Memory (for the Maine modules)

1012 -- CPU (for the Maine modules)

1013 -- Bluetooth chip (for the Maine modules)

102 -- Sensor module

1021 -- Memory (for sensor modules)

1022 -- CPU (for sensor modules)

1023 -- Bluetooth chip (for sensor modules)

1024 -- A/D converter

1025 -- PURIPUROSESU section

1026 -- Pulse wave sensor

1027 -- Temperature sensor

1028 -- GSR electrode

103 -- Acceleration-sensor module

1036 -- Acceleration sensor

107 -- Cellular phone

1071 -- Bluetooth chip (for cellular phones)

104 -- Portable display

1041 -- Bluetooth chip (for a portable display)

105 -- Bluetooth chip built-in Wrist watch mold display

106 -- Bluetooth and head set with a built-in CCD camera

1061 -- Microphone

1062 -- CCD camera